

We claim:

1. A method for the reduction of proteolysis in ensiled crops by contacting the material to be ensilaged with o-diphenyl compounds and polyphenol oxidase at the time of ensilaging in sufficient quantity to reduce the degree of proteolysis of the ensilaged material.
2. The method of claim 1 wherein the quantity of said o-diphenyl and said polyphenol oxidase is sufficient to reduce the degree of proteolysis by at least 20%.
3. The method of claim 1 wherein the o-diphenyl compound is applied to the crop material at a rate ranging from about 5 to about 30 micromoles per gram fresh weight and the polyphenol oxidase is applied to the crop material to be ensiled at a rate ranging from about 0.1 to about 1.0 unit per gram fresh weight.
4. The method of claim 1 wherein the ensilaged material is macerated to a conditioning index ranging from 30 to 60.

5. The method of claim 1 wherein the o-diphenyl compound is selected from the group consisting of caffeic acid, catechol, chlorogenic acid, phasic acid, malic acid, rosmarinic acid, caffeoyl tartrate, phasic acid and caffeoyl glucose.

6. An ensilaged material prepared by the process of claim 1.

7. A method for the reduction of proteolysis in ensiled crops by contacting a PPO transformed crop to be ensilaged with o-diphenyl compound at the time of ensilaging in a sufficient quantity to reduce the degree of proteolysis in the ensilaged material.

8. The method of claim 7 wherein the quantity of said o-diphenyl compound is sufficient to reduce the degree of proteolysis by at least 20%.

9. The method of claim 7 wherein the o-diphenyl compound is applied at a rate ranging from about 5 to about 30 micromoles per gram of fresh material.

10. The method of claim 7 wherein the ensilaged material is macerated to a conditioning index ranging from about 30 to about 60.

11. The method of claim 7 wherein the o-diphenyl compound is selected from the group consisting of caffeic acid, catechol, chlorogenic acid, phasic acid, rosmarinic acid, caffeoyl tartrate, and caffeoyl glucose.

12. An ensilaged material prepared by the process of claim 7.